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EXAMINER

MAHMOUDI, HASSAN

ART UNIT PAPER NUMBER

2175

DATE MAILED: 03/27/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/628,135

Applicant(s)

MATSUMOTO ET AL.

Examiner

Tony Mahmoudi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Remarks

1. In response to communications filed on 06-January-2003, claims 1, 7, 13, and 19 are amended per applicant's request. Claims 1-19 are pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 7, 10, 13, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komori (U.S. Patent No. 4,602,333) in view of Gahang (U.S. Patent No. 5,838,463.)

As to claim 1, Komori teaches an image storage (see Abstract) method comprising:

the image storage step of continuously storing a plurality of image data (see column 2, lines 15-20) in a first area of a single file (see column 4, lines 62-63, and see column 6, lines 24-25); and

an information storage step of storing information for accessing a source (see column 3, lines 58-68) outside the file, which pertains to each of the plurality of image data stored in the image storage step (see column 6, lines 13-25), in a storage order of the plurality of image data in a second area of the file (see column 6, lines 29-38.)

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Komori does not teach storing reference information; wherein the reference information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area.

Gahang teaches a binary image processing apparatus (see Abstract), in which he teaches storing reference information (see column 2, lines 42-47, where “reference information” is read on “shading factor” and the other image information stored”); wherein the reference information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area (see column 2, lines 6-9, and see column 2, line 65 through column 3, line 9.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori to include storing reference information; wherein the reference information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori by the teaching of Gahang, because storing the image reference information would enable the user to create reference files for the stored images, where he would be able to access, retrieve, and update the stored reference information without having to access the stored images; and because the reference information including information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area, would enable the system to offer a variety of choices to the user in enhancing (increasing) the image resolution by

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modifying the image references (properties) and storing the modified images with various resolutions for accessing and retrieval at a later time or by other users. An example of this process is displaying “thumbnails” of images with a certain image resolution, where a user accesses the image by clicking on the thumbnail, enlarges the image, and modifies image properties (edits the image), and saves the new image (edited image) with the changed properties, similar to editing and saving edited images in Photoshop.

As to claim 4, Komori as modified teaches wherein the image storage step includes the step of compressing and storing the plurality of image data (see Komori, column 2, lines 19-20.)

As to claim 7, Komori teaches an image storage apparatus (see Abstract) comprising:
image storage means for continuously storing a plurality of image data in a first area of a single file (see column 3, lines 3-10, and see column 4, lines 62-63); and
information storage means for storing information for accessing a source (see column 3, lines 58-68) outside the file, which pertains to each of the plurality of image data stored by the image storage means (see column 6, lines 13-25), in a storage order of the plurality of image data in a second area of the file (see column 6, lines 29-38.)

Komori does not teach storing reference information; wherein the reference information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area.

Gahang teaches a binary image processing apparatus (see Abstract), in which he teaches storing reference information (see column 2, lines 42-47, where “reference information” is read on “shading factor” and the other image information stored”); wherein the reference information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area (see column 2, lines 6-9, and see column 2, line 65 through column 3, line 9.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori to include storing reference information; wherein the reference information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori by the teaching of Gahang, because storing the image reference information would enable the user to create reference files for the stored images, where he would be able to access, retrieve, and update the stored reference information without having to access the stored images; and because the reference information including information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area, would enable the system to offer a variety of choices to the user in enhancing (increasing) the image resolution by modifying the image references (properties) and storing the modified images with various resolutions for accessing and retrieval at a later time or by other users. An example of this process is displaying “thumbnails” of images with a certain image resolution, where a user

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accesses the image by clicking on the thumbnail, enlarges the image, and modifies image properties (edits the image), and saves the new image (edited image) with the changed properties, similar to editing and saving edited images in Photoshop.

As to claim 10, Komori as modified teaches wherein the image storage means compresses and stores the plurality of image data (see Komori, column 2, lines 19-20.)

As to claim 13, Komori teaches a storage medium for storing an image data file (see column 3, lines 3-10, where “storage medium” is read on “storage device”), the image data file comprising:

a first area which continuously stores a plurality of image data (see column 4, lines 62-63); and

a second area (see column 4, lines 63-64) which stores information for accessing a source (see column 3, lines 58-68) outside the file, which pertains to each of the plurality of image data stored in the first area (see column 6, lines 13-25), in a storage order of the plurality of image data (see column 6, lines 29-38.)

Komori does not teach storing reference information; wherein the reference information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area.

Gahang teaches a binary image processing apparatus (see Abstract), in which he teaches storing reference information (see column 2, lines 42-47, where “reference information” is read on “shading factor” and the other image information stored”); wherein the reference

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information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area (see column 2, lines 6-9, and see column 2, line 65 through column 3, line 9.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori to include storing reference information; wherein the reference information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori by the teaching of Gahang, because storing the image reference information would enable the user to create reference files for the stored images, where he would be able to access, retrieve, and update the stored reference information without having to access the stored images; and because the reference information including information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area, would enable the system to offer a variety of choices to the user in enhancing (increasing) the image resolution by modifying the image references (properties) and storing the modified images with various resolutions for accessing and retrieval at a later time or by other users. An example of this process is displaying "thumbnails" of images with a certain image resolution, where a user accesses the image by clicking on the thumbnail, enlarges the image, and modifies image properties (edits the image), and saves the new image (edited image) with the changed properties, similar to editing and saving edited images in Photoshop.

As to claim 16, Komori as modified teaches wherein the image data file stored in the first area is compressed (see Komori, column 2, lines 19-20.)

As to claim 19, Komori teaches a storage medium (see column 2, lines 24-25) for storing a control program (see column 2, lines 28) for making a computer implement generation and storage of an image data file, the control program comprising:

a code (see Abstract. It is inherent that an image processing system and apparatus consists of code/program) of the image storage step of continuously storing a plurality of image data in a first area of a single file (see column 4, lines 62-63, and column 6, lines 24-25); and

a code (see Abstract. It is inherent that an image processing system and apparatus consists of code/program) of the information storage step of storing information for accessing a source (see column 3, lines 58-68) outside the file, which pertains to each of the plurality of image data stored in the image storage step (see column 6, lines 13-25, in a storage order of the plurality of image data in a second area of the file (see column 6, lines 29-38.)

Komori does not teach storing reference information; wherein the reference information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area.

Gahang teaches a binary image processing apparatus (see Abstract), in which he teaches storing reference information (see column 2, lines 42-47, where “reference information” is read on “shading factor” and the other image information stored”); wherein the reference

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information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area (see column 2, lines 6-9, and see column 2, line 65 through column 3, line 9.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori to include storing reference information; wherein the reference information includes information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori by the teaching of Gahang, because storing the image reference information would enable the user to create reference files for the stored images, where he would be able to access, retrieve, and update the stored reference information without having to access the stored images; and because the reference information including information for accessing image data which is a higher resolution version of the corresponding image data stored in the first area, would enable the system to offer a variety of choices to the user in enhancing (increasing) the image resolution by modifying the image references (properties) and storing the modified images with various resolutions for accessing and retrieval at a later time or by other users. An example of this process is displaying "thumbnails" of images with a certain image resolution, where a user accesses the image by clicking on the thumbnail, enlarges the image, and modifies image properties (edits the image), and saves the new image (edited image) with the changed properties, similar to editing and saving edited images in Photoshop.

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4. Claims 5, 11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komori (U.S. Patent No. 4,602,333) in view of Gahang (U.S. Patent No. 5,838,463) as applied to claims 1, 4, 7, 10, 13, 16 and 19 above, and further in view of Yamaguchi et al (U.S. Patent No. 4,949,287.)

As to claims 5, 11, and 17, Komori as modified still does not teach wherein the reference information specifies an image file name of an original of the image data stored in the first area.

Yamaguchi et al teaches a document processing system for laying out of image data (see Abstract), in which he teaches wherein the reference information specifies an image file name of an original of the image data stored in the first area (see column 2, lines 12-15, where the "file name" can be presented by the "relationship" described within the reference data".)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori as modified to include wherein the reference information specifies an image file name of an original of the image data stored in the first area.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori as modified, by the teaching of Yamaguchi et al, because including wherein the reference information specifies an image file name of an original of the image data stored in the first area, would enable the system to differentiate the

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original image from the edited (modified) versions of the same image, where the user can retrieve the images from their specific image file names.

5. Claims 2-3, 6, 8-9, 12, 14-15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komori (U.S. Patent No. 4,602,333) in view of Gahang (U.S. Patent No. 5,838,463) as applied to claims 1, 4, 7, 10, 13, 16 and 19 above, and further in view of Kurakake et al (U.S. Patent No. 6,078,005.)

As to claim 2, Komori as modified does not teach the method further comprising the feature amount storage step of assuring a third area in the file, and storing feature amount data corresponding to the image data stored in the first area in the storage order of the plurality of image data.

Kurakake et al teaches an apparatus for producing multi-media events (see Abstract), in which he teaches the feature amount storage step of assuring a third area in the file, and storing feature amount data corresponding to the image data stored in the first area in the storage order of the plurality of image data (see figure 3(b) and see column 7, lines 24-43, where “feature amount” is read on “feature property”.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori as modified, to include the feature amount storage step of assuring a third area in the file, and storing feature amount data corresponding to the image data stored in the first area in the storage order of the plurality of image data.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori as modified, by the teaching of Kurakake et al, because including the feature amount storage step of assuring a third area in the file, and storing feature amount data corresponding to the image data stored in the first area in the storage order of the plurality of image data would enable the user to store the feature amounts and property information associated with images along with (but separate from) the images according to the order in which images are stored, in order to increase the speed of image searching and be able to access the feature amounts associated with the image after searching for an locating the desired image.

As to claim 3, Komori as modified teaches the method further comprising the header information storage step of assuring a fourth area in the file, and storing header information including boundary, position information between the first and second areas (see Kurakake et al, column 7, line 59 through column 4, line 6.)

As to claim 6, Komori as modified teaches wherein the image storage step includes the step of storing one or a plurality of frame images extracted from moving image data in the first area (see Kurakake et al, column 5, lines 26-33), and

the reference information storage step includes the step of storing information that specifies moving image data corresponding to each frame image stored in the first area and a frame position thereof as the reference information in the second area (see Kurakake et al, column 5, line 57 through column 6, line 3.)

As to claim 8, Komori as modified does not teach the apparatus further comprising feature amount storage means for assuring a third area in the file, and storing feature amount data corresponding to the image data stored in the first area in the storage order of the plurality of image data.

Kurakake et al teaches an apparatus for producing multi-media events (see Abstract), in which he teaches feature amount storage means for assuring a third area in the file, and storing feature amount data corresponding to the image data stored in the first area in the storage order of the plurality of image data (see figure 3(b) and see column 7, lines 24-43, where “feature amount” is read on “feature property”).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori as modified, to include feature amount storage means for assuring a third area in the file, and storing feature amount data corresponding to the image data stored in the first area in the storage order of the plurality of image data.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori as modified, by the teaching of Kurakake et al, because including feature amount storage means for assuring a third area in the file, and storing feature amount data corresponding to the image data stored in the first area in the storage order of the plurality of image data would enable the user to store the feature amounts and property information associated with images along with (by separate from) the images according to the order in which images are stored, in order to increase the speed of image

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searching and be able to access the feature amounts associated with the image after searching for an locating the desired image.

As to claim 9, Komori as modified teaches the apparatus further comprising header information storage means for assuring a fourth area in the file, and storing header information including boundary position information between the first and second areas (see Kurakake et al, column 7, line 59 through column 4, line 6.)

As to claim 12, Komori as modified teaches wherein the image storage means stores one or a plurality of frame images extracted from moving image data in the first area (see Kurakake et al, column 5, lines 26-33), and

the reference information storage means stores information that specifies moving image data corresponding to each frame image stored in the first area and a frame position thereof as the reference information in the second area (see Kurakake et al, column 5, line 57 through column 6, line 3.)

As to claim 14, Komori as modified does not teach wherein the image data file further comprises a third area which stores feature amount data corresponding to the image data stored in the first area in the storage order of the plurality of image data.

Kurakake et al teaches an apparatus for producing multi-media events (see Abstract), in which he teaches a third area which stores feature amount data corresponding to the image

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data stored in the first area in the storage order of the plurality of image data (see figure 3(b) and see column 7, lines 24-43, where “feature amount” is read on “feature property”.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori as modified, to include wherein the image data file further comprises a third area which stores feature amount data corresponding to the image data stored in the first area in the storage order of the plurality of image data.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Komori as modified, by the teaching of Kurakake et al, because including the image data file further comprising a third area which stores feature amount data corresponding to the image data stored in the first area in the storage order of the plurality of image data would enable the user to store the feature amounts and property information associated with images along with (but separate from) the images according to the order in which images are stored, in order to increase the speed of image searching and be able to access the feature amounts associated with the image after searching for an locating the desired image.

As to claim 15, Komori as modified teaches wherein the image data file further comprises a fourth area which stores header information including boundary position information between the first and second areas (see Kurakake et al, column 7, line 59 through column 4, line 6.)

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As to claim 18, Komori as modified teaches wherein the first area stores one or a plurality of frame images extracted from moving image data (see Kurakake et al, column 5, lines 26-33), and

the second area stores information that specifies moving image data corresponding to each frame imaged stored in the first area and a frame position thereof as the reference information (see Kurakake et al, column 5, line 57 through column 6, line 3.)

Response to Arguments

6. Applicant's arguments filed on 06-January-2003 with respect to the cited references have been fully considered but are considered moot in view of the new grounds of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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8. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (703) 305-4887. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

tm

March 12, 2003


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